

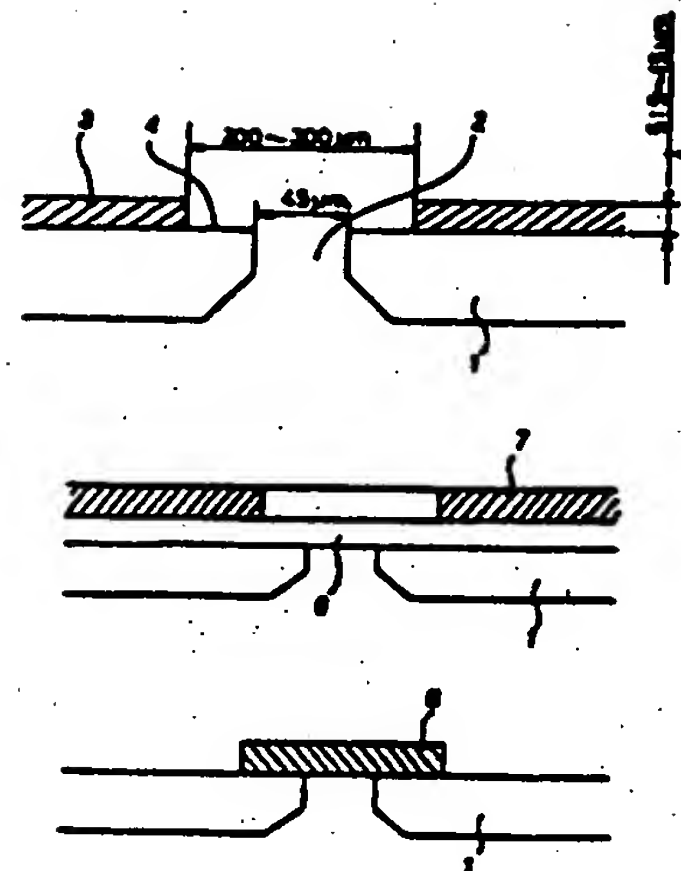
JP 405193140 A
AUG 1993

(54) STEP DIFFERENCE FORMING METHOD FOR NOZZLE FACE OF INK
JET HEAD

(11) 5-193140 (A) (43) 3.8.1993 (19) JP
(21) Appl. No. 4-7724 (22) 20.1.1992
(71) SEIKO EPSON CORP (72) YUICHI SEKI(2)
(51) Int. Cl. B41J2/135

PURPOSE: To easily constitute a face of step difference in the neighborhood of a nozzle opening having excellent cleaning property and water-repellent property by forming a step difference in the neighborhood of a nozzle of an ink jet head by plating treatment.

CONSTITUTION: It is provided so that a diameter of an ink outlet 2 to $45\mu\text{m}$, a diameter of a step difference 4 is $300\text{--}300\mu\text{m}$, and a step difference 5 to be formed by the ink outlet and a plating layer 3 is $5\text{--}15\mu\text{m}$. First, a nozzle plate 1 is cleaned by alkaline electric field cleaning, dried, and laminated with a UV curing resin 6. After exposure is completed, it is cleaned by pure water so as to leave only a cured part of the UV curing resin on the plate 1. After the resin is developed, the whole face is laminated with the resin and exposed. Next, the plate is treated with rough nickel plating, thereafter, treated with nickel plating. After the completion of the nickel plating, the plate 1 is cleaned and dried. Lastly, releasing liquid is sprayed on the plate so as to peel off the cured part of the resin 6, so that a step difference is formed in the neighborhood of the nozzle of the plate 1.



A: step difference